

A new jumping spider of the genus *Cosmophasis* Simon 1901 (Araneae: Salticidae) from Maharashtra, India

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Abstract — A new species of jumping spider, *Cosmophasis undulata* sp. nov., is described from Maharashtra, India. The new species differs from other known species of the genus by its unique abdominal pattern.

Key words — Jumping spider, *Cosmophasis*, Maharashtra, new species, India

The genus *Cosmophasis* Simon has been placed under the subfamily Heliophaninae (Prószyński 1976; Maddison 1987; Maddison et al. 2008; Žabka & Waldock 2012). Presently 58 species are known from this genus (World Spider Catalog 2015). Only one species is known from India, namely *C. miniaceomicans* (Simon 1888), which is described from the Andaman and Nicobar islands. Dyal (1935) reports *C. umbratica* Simon 1903 from Lahore presently located within the political border of Pakistan, and the species therefore has been excluded from the Indian checklist (Siliwal et al. 2005). The present paper is the first record of the genus *Cosmophasis* in the Indian mainland.

The specimen was examined using a Leica S8APO stereoscopic microscope, and photographs were obtained using Leica MC120 HD camera with LAS core software. The type specimen is deposited in National Centre for Biological Sciences (NCBS), Bangalore, Karnataka, India. All measurements are in mm. Leg measurements are given in the following format: total length (femur, patella, tibia, metatarsus, tarsus). Abbreviations used in the text: ALE - anterior lateral eye, AME - anterior median eye, PLE - posterior lateral eye, PME - posterior median eye.

Taxonomy

Cosmophasis undulata sp. nov.
(Figs. 1–10)

Type material. Male holotype: Anjanwel village, Maharashtra, India, 17.541931° N, 73.172957° E, Alt. 24m; October 2, 2013, coll. Gajbe, U. A. (NCBS-AR101)

Diagnosis. This new species can be easily distinguished from other congeners by abdominal pattern with a pair of longitudinal white stripes. Cephalothorax devoid of transverse bands; clypeus with a short patch of white hairs.

Palpal structure with a long wavy embolus; tegular bump present.

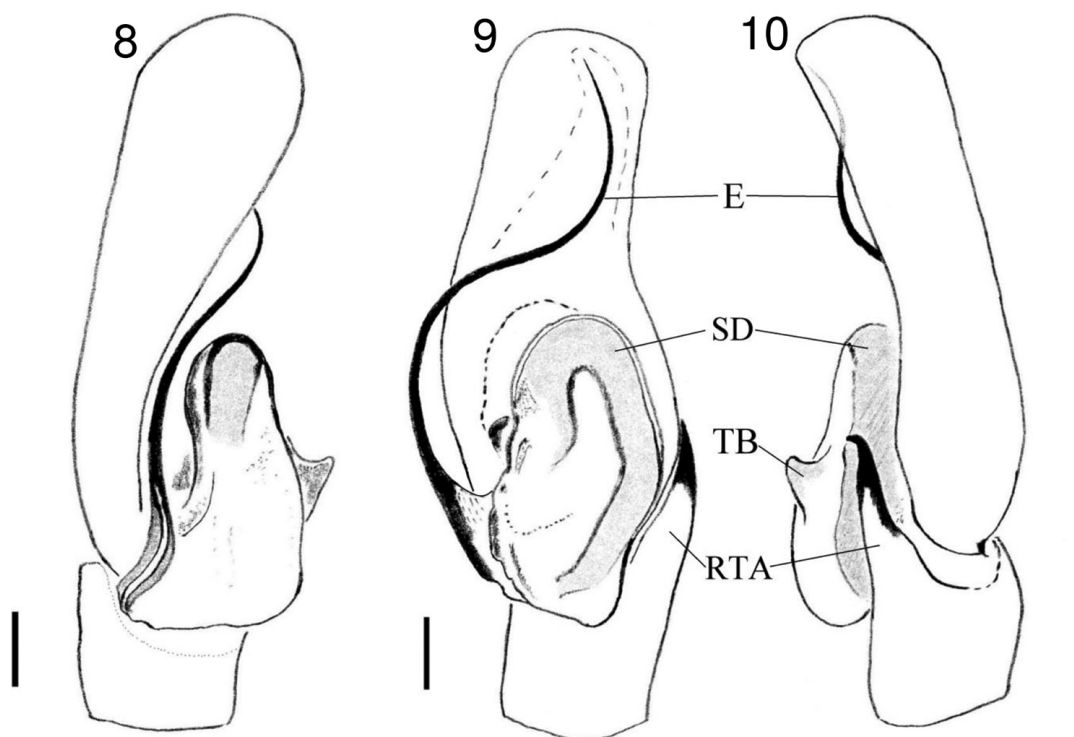
Description. *Male holotype.* Total length 5.57. Carapace 2.46 long; 1.91 wide. Eye measurements: AME 0.45, ALE 0.22, PME 0.06, PLE 0.24; AME-AME 0.02, AME-ALE 0.04, PME-PME 1.24, PME-PLE 0.29, ALE-PLE 0.73, clypeus height 0.15. Leg measurements: I 6.23 (1.67, 1.00, 1.55, 1.28, 0.73); II 4.53 (1.38, 0.72, 1.02, 0.94, 0.47); III 5.11 (1.54, 0.71, 1.05, 1.18, 0.63); IV 5.40 (1.64, 0.65, 1.23, 1.23, 0.65). Abdomen 3.11 long; 1.35 wide.

Cephalothorax brownish covered with pale yellow scales (Fig. 1); white band of hairs extending backwards from lateral surface to around the posterior margin; front edge of cephalothorax with fringe of longer greyish hairs just behind anterior eye row; sparse greyish white hairs seen in median ocular area behind AMEs (Fig. 1). Eyes surrounded by darkly pigmented black regions. Anterior eyes surrounded by white scales; clypeus covered with short white hairs like ‘moustache’ (Fig. 3). Chelicerae unidentate, reddish black; maxillae and labium brownish orange except dark outer edges on the maxillae (Fig. 4). Sternum oval, yellowish, covered with pale yellow hairs (Fig. 2). Legs I and II with dark bluish-green metallic sheen on the ventral and prolateral regions; other legs lighter, yellowish to greenish-yellow. Abdomen elongate, narrowing posteriorly with greenish yellow median area and a pair of longitudinal white stripes; chevron-shaped white markings present in the posterior-median region (Fig. 1); ventral region of abdomen brownish with yellow spots. Spinnerets brownish (Fig. 2). Palp yellowish brown, covered with greyish white hairs dorsally; palpal femur with six dorsal spines (Figs. 6–7); embolus long, slender and wavy, bulbus longer than width (Figs. 6, 9), retrolateral tibial apophysis long and slightly bent at the tip (Figs. 7, 10).

Female. Unknown.



Figs. 1-7. *Cosmophasis undulata* sp. nov. (male holotype, NCBS-AR101). 1, habitus, dorsal view; 2, same, ventral view; 3, same, front view; 4, chelicerae, maxillae and labium; 5, left palp, prolateral view; 6, same, ventral view; 7, same, retrolateral view. Scales=1 mm (1-3); 0.1 mm (4-7).



Figs. 8–10. *Cosmophasis undulata* sp. nov. (male holotype, NCBS-AR101) 8, left palp, prolateral view; 9, same, ventral view; 10, same retrolateral view. Scales = 0.1 mm. Abbreviations: E - embolus, RTA - retrolateral tibial apophysis, SD - sperm duct, TB - tegular bump.

Distribution. Maharashtra, India.

Etymology. Specific name is a Latin adjective referring to the wavy nature of the embolus.

Remarks. The new species resembles *C. courti* Żabka & Waldock 2012, but can be distinguished by the palpal structure with a long wavy embolus (Figs. 6, 9) (longer than that of *C. courti*); tegular sclerite is absent (a small tegular sclerite is present in *C. courti*); clypeus with a short patch of white hairs (brownish in *C. courti*); cephalothorax with sparse white hairs in the anterior eye field without any transverse bands (transverse bands of blue and red iridescent scales in *C. courti*); cheliceral fang without keel (present in *C. courti*). Abdomen with a pair of longitudinal white stripes (Fig. 1) (abdomen devoid of any stripes in *C. courti*).

Acknowledgments

We thank Prof. Dr. Jerzy Prószyński for his valuable comments. We are grateful to Dr. Gajbe U. A. who generously shared his spider collection for examination. Thanks to Dr. Krushnamegh Kunte, Lab 8, National Centre for Biological Sciences, Bangalore for allowing us to use the Stereo microscope. The comments provided by two anonymous reviewers greatly improved this manuscript.

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Received August 3, 2015 / Accepted October 6, 2015